

Name: _____
A2 CC1: Review Sheet for Exam 1 Quarter 1

Date: _____
Due Friday 10/13

This review sheet is not comprehensive. Please look over your notes and homework assignments to prepare fully spending time specifically on questions that you struggled with. **PLEASE DO ALL WORK ON SEPARATE LINED PAPER. Exam 2 is on Monday, October 16th.**

In 1-8, simplify each expression and write it without negative exponents. All variables represent positive numbers.

1. $\frac{20x^{-3}y^5}{4x^{-2}y^4}$
2. $(2c^{\frac{1}{2}}d)(c^{\frac{3}{2}}d^{-1})$
3. $(12a^{\frac{1}{5}})^0$
4. $\frac{(2a^2b^4)^2}{2a^3b^{-5}}$
5. $\sqrt{36x^7y^{11}}$
6. $(5c^{-3}d^{-6}e^2)(2c^{-4}d^{-2}e^{-2})$
7. $(3a^2b^4)^3(2a^{-4}b)^{-1}$

In 8-23, perform the indicated operation, and write each answer in simplest form.

9. $\sqrt{90} + \sqrt{40}$
10. $\sqrt{98} - 2\sqrt{18}$
11. $2\sqrt{5} \cdot \sqrt{15}$
12. $\frac{6\sqrt{60}}{24\sqrt{3}}$
13. $\sqrt{3}(2\sqrt{27} - \sqrt{6})$
14. $(2 + \sqrt{5})(3 - \sqrt{5})$
15. $\frac{3}{5}\sqrt{75a^4b^6c} - \frac{1}{2}\sqrt{192a^4b^6c}$
16. $3\sqrt{4a^3} - 6\sqrt{9a^3}$
17. $3a^2b^3(4a^3b - 3a^2b^2 + 5ab^3)$
18. $(7y + 2)(7y - 2)$
19. $(7x - 2)(5x + 8)$
20. $(2x - 5)(3x^2 + x - 4)$

$$21. \frac{\sqrt{2a^3b}}{\sqrt{6a}}$$

$$22. (2\sqrt{6} + \sqrt{5})^2$$

$$23. \frac{8\sqrt{20x^8} - 4\sqrt{10x^3}}{2\sqrt{5x}}$$

In 24-26, solve each equation.

$$24. 4(x + 4) = x + 2(x + 11)$$

$$25. 3x - 7 = 2 - (2x + 6)$$

$$26. 14 + 3(x + 2) = 3 + 2(x + 9)$$